# THE VETERINARY RECORD

A Weekly Journal for the Profession.

No. 339. SATURDAY, JANUARY 5, 1895. Vol. VII.

## The New Year Honours.

With real pleasure we find in the list of honours published on the new year, the name of a well-known veterinary surgeon--Veterinary Captain Joshua Nunn, Principal of the Lahore Veterinary College. This gentleman is made a Companion of the Indian Empire—a C.I.E., and although we may hold that the honour is well deserved and fairly earned it is nevertheless a very great compliment to the Army Veterinary Department and to the veterinary profession generally.

This recognition by Her Majesty and the Indian Government of the services of a member of our profession is a timely reply to the pessimistic few who think the veterinarian has no future, and no hopes of social recognition higher than those now prevailing. If we had more Joshua Nunns we should have more positions of eminence. It is our individual selves who are to blame for not attaining. When the general standard of intelligence and acquirements is raised—as it will be by recent changes—there will be many individuals who by work and conduct will share the recognitions we now seldom obtain. There is a great future before the profession, but no eminence is reached by wishing and waiting. We must push forward, we must demonstrate a higher value than mere ability to write a prescription, and we must work in unity.

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## Heredity and Tuberculosis.

We hear a good deal about heredity as a cause of tuberculosis. We do not hear quite as much now as we used to do. Before it was definitely settled that every case of tuberculosis depended upon the presence of a specific organism, heredity was a useful theory, and medical men naturally made the most of it. If we had always known that tuberculosis was a contagious disease like glanders should we have had good grounds to consider heredity an acting cause? All theories die hard, and supporters in relinquishing them do so gradually. A few years ago it was considered quite unnecessary to qualify the statement that tuberculosis was hereditary. We accepted it then as we now do a statement that spavins are hereditary. It seemed no more difficult to account for a hereditary spavin not appearing in a horse till five or four years old, then for hereditary tuberculosis only to appear at 20 or 30 in a man. The two conditions are not comparable. There is no organism in spavin, and we quite understand how an hereditary weak hock should require the strain of work to develope an exostosis. The hereditary weak lung of tuberculous patients is only an hypothesis. Scores of men and animals of a weakly constitution —in whom a weak lung may be expected—escape any tubercular infection. Hundreds of beings, as apparently strong as the strongest suffer from tuberculosis. Probably no animal has ever been able to resist direct introduction of the tubercle bacillus when administered in quantity, and the bacillus never remains in the body quiescent for years.

How is it glanders and small-pox have not been selected as hereditary diseases? Are there really any unmistakable records proving even the hereditary tendency of animals to tuberculosis? Of course there are plenty of cases where a tuberculous cow has produced calves which have at varying ages suffered from tuberculosis. But in such cases has the possibility of contagion been always considered and proved absent. We must bow to facts, and if heredity is a cause there are facts to prove it. Second-hand statements by farmers or cowherds are not good enough. Vague statements such as "there was no tuberculosis in this herd until a certain bull came into the neighbourhood. The bull was not diseased but came of tuberculous stock." are worthless. There must be assurance that no other diseased animals entered the district, that the bull had no latent disease, and possibly that no human patient infected the first animal.

It seems so opposed to all analogies presented by other contagious diseases that very patent facts are required to give a semblance of veracity to the theory that heredity plays any part in the spread of tuberculosis. The general notion that heredity is a cause is easily explained by the fact that such theory was formed before the nature of the disease was discovered—and widely accepted theories are seldom acknowledged as wrong by the generation that adopted them. "An ounce of fact is worth a ton of theory" and we shall be glad to receive details of any outbreak where heredity seemed to play a part. We should prefer a quite recent case where it is possible to make independent enquiries.

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## The Fellowship.

At a recent examination for the Fellowship Degree held by Messrs. Fleming, Duguid and Macqueen, three gentlemen satisfied the examiners and took the diploma—Messrs. J. R. Green, of Alfreton, H. Watkins-Pitchford, of Blackwater, and Professor de Jong, of Edinburgh. Circumstances prevented two other members from presenting themselves, but we trust that they and others will take the degree in May. It may be well to remind intending candidates that under the new rules an examination is always available in May and December irrespective of the number to be examined.

## CASES AND ARTICLES.

### THE TREATMENT OF SPRAINS.

By W. Reekie, M.R.C.V,S., London.

I read with much interest the paper on the new treatment of sprains of tendons and ligaments in your issues of December 22nd and 29th. Some years ago I met with a severe sprain of my wrist and the treatment was hot water and motion of the part, which was so succesful that I determined to try it on a horse at the first opportunity. This happened to be a case of curb in a carriage horse. The animal was out at exercise in harness and came in very lame on one hind leg, a curb was easily seen to be the cause and I had the part well hand-rubbed and a high-heeled shoe put on. Next morning the swelling was much increased, as also the lameness, but after twenty minutes hand-rubbing, the horse was sent for a quarter of an hour's walking exercise in double harness, the rubbing being repeated in the evening. This was done night and morning and the exercise gradually increased to an hour. The horse was quite sound in 10 days and was in regular work again a few days later, the high-heeled shoe being replaced by an ordinary one when the animal was sound.

A more recent case was a valuable brown mare that was being broken to ride, the groom brought her home one day very lame, also from curb. The same treatment was adopted—except that she was led to exercise—with the same result.

I prefer double harness exercise when possible as the animals go so much quieter. Of course a most material point in both these cases was that I saw them immediately they were done.

I must say I have not been so successful with sprains of the back tendons and ligaments of the fore and hind limbs. The difficulty being to get the patient to continue sound in any other pace than walking; besides, a considerable amount of the swelling remains. This can easily be imagined from the immense action these parts play in rapid locomotion and a blister had, as a rule, to be applied at the end of a fortnight. A case this last week, a grey gelding in light van work, was noticed lame in the afternoon; a sprain of the inferior carpal ligament was easily diagnosed. A tight linen bandage with cotton wool underneath was applied, and in three days the swelling had much decreased and the horse walked sonnd, but in trotting the lameness is still very evident. A high heeled shoe is of great importance in all such cases to prevent undue action of the injured parts.

The hand-rubbing I adopted was both with and against the hair, much pressure being used in the former, and softly in the latter, a little vaseline greatly facilitating the massage.

In the case of my wrist a pailful of hot water gave more relief than an ordinary hand-basin, no matter how often the latter might be replenished with hot water. The volume of water in the pail seemed to exert a great effect.

With regard to Mr. Hopkin's question as to the heredity of contracted tendons, I knew a first-rate huntress by "Dalesman" with very bowed front legs, the owner thought so much of her, that he mated her with "Truefit," Mr. Burdett-Coutts celebrated premium hunter stallion; the first produce now five years old much resembled the father, with the bowed legs of the mother. The second produce of the mare—now three years old—is quite straight in its fore legs.

### SUBNORMAL TEMPERATURES.

By E. F. de Jong, F.R.C.V.S., Edinburgh.

An extract on the above subject which appeared in this week's *Record* has led me to pen these few remarks.

The use of the thermometer in veterinary practice cannot be over estimated, but we are apt to use it simply for the purpose of obtaining the amount of fever present. If after its application there is no indication of a rise above the normal we, as a rule, are quite satisfied; but it seems to me that we neglect to note if the temperature be *subnormal*, which is a point of considerable importance and might greatly assist us in our diagnosis.

I have recently had under treatment a case of "diabetes mellitus" in the horse, in which a subnormal temperature was most marked, on one occasion being as low as 98.2F and never rising above 99.5.

If this temperature is constant in this disease it is a most important clinical fact, because this form of diabetes is not often met with in the horse, or at least I should say diagnosed.

The symptoms were intense thirst, coat dry and harsh, general unthriftiness, frequent micturition, etc., (very similar to those of the ordinary form) but my attention was directed to the urine which was high coloured and thick, the very reverse of diabetes insipidus.

I had some urine collected for me and it appeared very similar to the "golden syrup" of the grocer, but perhaps not quite so viscid.

Upon testing it with Fehling's solution it gave the characteristic reaction of sugar, but as this solution cannot be relied upon, unless freshly prepared, and as I had not other chemical re-agents handy for confirmatory tests, I took some of the urine to the Royal Infirmary in this city, where it was tested and reported to me that sugar was detected in large quantities. Another point worth noting was the specific gravity, which instead of being diminished as in the insipidus form was greatly increased, it being 1060.

I have related this case not only to show that diabetes mellitus occurs in the horse, but also to record the subnormal temperature, which if it be constant, as already stated may be a most important factor in the differential diagnosis from diabetes insipidus. I would therefore suggest that more attention be paid to subnormal temperatures, from which I am sure there is a great deal to be learnt.

I will be pleased to hear through the medium of your valuable paper if any practitioners have met with subnormal temperatures, and in what diseases.

## IS THERAPEUTICS A SCIENCE?

By E. Wallis Hoare, F.R.C.V.S., Cork.

This question is one which often presents itself to the minds of those who meditate on the part which drugs play in the treatment of disease. New drugs and methods of treatment are ever on the increase; some prove of practical utility, others live "a vernal life which blossoms but to die." Authorities teach that methods of treatment may be divided into (1) *Rational*, (2) *Empirical*. Rational treatment is usually regarded as being founded on chemical, physiological, and pathological knowledge, and on a consideration of the powers possessed by nature to induce a return to health. Empirical treatment is founded on the results of experience, and is not guided by any laws.

The aim of the scientific practitioner should be to reform empirical treatment into rational. But a brief consideration of the subject will quickly demonstrate the difficulties to be encountered in such an attempt. To be successful we must possess a perfect knowledge of the changes produced by disease, of the symptoms which will demonstrate to us the existence of such changes, and finally we must be thoroughly acquainted with the actions of medicinal agents in the body, both in health and disease. It is needless to state how imperfect is our knowledge in these matters, and hence a large proportion of our treatment, which we often regard as being rational, is in reality empirical. We are accustomed to judge by statistical evidence, *i.e.* by the results; if successful there is a tendency to ascribe these to a correct diagnosis, to a true reading of symptoms, and to a scientific employment of medicinal agents.

But those of us who now and then indulge in a little scepticism, and who adopt occasionally experimental lines of treatment, and make it a rule to perform autopsies whenever possible, soon discover that those drugs on which we pinned our faith are not always responsible for favourable results or otherwise, and that one line of treatment often succeeds equally as well as another. We also learn that symptoms are frequently deceptive, that diagnoses are often incorrect, and that the action of drugs varies greatly in different individuals. In the vast majority of instances we are compelled to treat symptoms rather than to act upon the existing disease, indeed in very few cases can we bring our knowledge of pharmacodynamics to bear on the latter.

Many valuable medicinal agents were discovered by their empirical use, and much as we dislike the idea of still continuing them under these conditions, we must confess that as yet we are unable to explain their action in a rational manner. Of how many drugs which we are daily prescribing can we precisely explain the action in the modification of disease? We are perfectly aware of the variable manner in which drugs act in different individuals even in a state of health, while in disease we must expect a further variation. New drugs, naturally, are accredited with much therapeutic value if they happen to be given to cases in which successful results occur; but probably if other agents had been administered similar results would have been obtained.

The *vis medicatrix naturæ* is apt to be frequently over-looked in judging of the value of medicinal agents. The observant practitioner readily recognises the importance of assisting nature as much as possible, and avoiding the excessive administration of drugs. This constitutes one of the fundamental principles in rational therapeutics and which must ever raise this division above that which we designate as empirical. We cannot pretend that therapeutics, whether general or special, is as yet entitled to the full claim of being rational, but the tendency is by pathological and clinical research to render it so. We are not satisfied with statistical therapeutics; we desire knowledge as to how a line of treatment acts on the disease, we enquire the reason why one drug is selected in preference to another, and we study the indications for its employment.

The striking differences of opinion which exist on important questions in therapeutics, cannot be reconciled by statistical evidence. For example one set of practitioners employ counter-irritation in the treatment of pulmonary affections, and state as a result that it is most successful. Others never employ counter-irritation in such cases and record just as favourable results.

The theory of counter-irritation is far from being definitely understood, consequently its action in the treatment of disease cannot be explained in a rational manner. But there are cases where it proves of signal benefit if judiciously employed; the difficulty is in the selection of such cases. We frequently see cases where counter-irritation fails to be of any service, but which show marked improvement on the application of hot cloths to the thoracic walls. And, on the other hand, we find cases where the treatment with hot applications fails to give relief, and the employment of mustard proves beneficial.

Again, take that fatal affection tetanus. In this the skill of the therapeutist has been taxed from time immemorial, and we are not yet anything nearer the successful treatment of the disease. No doubt cases have recovered under different lines of treatment, but when we consider that instances of spontaneous recovery have occurred, and that the drug which appeared to succeed in one case, signally failed in another, we commence to suspect that in those which recovered, too much reliance may have been placed on the action of the drug employed. As yet we are not aware of the precise pathological anatomy of tetanus. Its cause has been discovered, but in reality it is the effects which the therapeutist is called upon to treat. We see few cases of the affection in the primary stages, the patients cannot inform the attendants of the first sensations produced by the disease, and hence the symptoms are usually characteristic before treatment is solicited. Rational therapeutics can be of little avail here, our endeavours are eminently empirical, but unfortunately as yet very unsuccessful. How can we act on the bacillus which is the cause of the disease, seeing that we cannot be aware of its existence until the characteristic spasms of the affection are manifested?

The tendency of scientific investigations is to arrive at the *cause* of disease, and then to employ treatment in a rational manner. But unfortunately in veterinary practice we are seldom able to utilise our power of interference over the *cause* of disease, seeing that cases are often in an advanced stage when brought for treatment, so that it is the *effects* which claim attention at our hands. And as these effects are only manifested to us by objective symptoms, and as the latter are not always clear but often deceptive, it follows that treatment cannot in all instances be classed as technically rational.

Another affection, the treatment of which has become fairly successful in recent years, is milk fever. Nothing definite is yet known of the causes or the pathological anatomy, still very different lines of treatment had been adopted for a long period with a variable degree of success. At present the administration of chloral hydrate has given very successful results in a large number of cases. That such treatment is empirical few will venture to deny; of its success a large number of practitioners can testify. We are not aware of the pathological condition of the nervous system in this affection although numerous theories have been advanced. Some, regarding it as an apoplectic condition, treated it by depletive measures such as venesection, drastic purgatives etc. Others, viewing it as a condition of cerebral anæmia, administered large doses of stimulants. Cases recovered under both these lines of treatment, but a large number also succumbed to the disease. Now, the treatment by chloral hydrate is growing in favour.

It seems difficult to understand how, in a disease which is characterised by the appearances of cerebral coma, a drug possessing such a marked hypnotic action as chloral hydrate can produce beneficial results. In the primary stage of excitement we can understand its beneficial action, but in a case where a cow is lying in a semi-comatose condition, and when after a few doses of this drug she returns to consciousness, we are forced to admit that we cannot explain the *modus operandi* of the treatment.

Here is ample ground for research of an eminently useful character. What is the precise action of chloral hydrate on the cerebrum? How does it produce its hypnotic effects in ordinary cases, while in this affection it has an apparently opposite action. Is its action modified by the pathological condition of the cerebrum in milk fever? How can we account for the beneficial effects of large doses of stimulants in some cases of milk fever, and their signal failure in others? And we can call to memory cases of this disease, where after free purgation as a result of the administration of croton of oil the patients recovered. Is it rational then to conclude that milk fever does not always depend on a definite pathological condition? Chloral hydrate will fail in some cases where stimulants will succeed.

We look forward to original research in these matters as being of the utmost importance to us as practitioners, we do our best to give advice as to prevention of diseases of this nature, but we must not rest satisfied with our present knowledge of their treatment.

Again, in gastric and intestinal affections we cannot regard our treatment as technically rational. We have the general symptom of pain presented, varying no doubt in character and intensity; abdominal distension may be present or absent; different postures may be assumed by the patient, the pulse may be so altered as to indicate a serious condition; the character of the respirations, the temperature, the visible mucous membranes, all claim our attention, but in what manner can the knowledge of the therapeutist be brought to bear in the case so as to fulfil the conditions of rational treatment? He prescribes anodynes to allay the pain—irrespective of its cause, for he cannot definitely be cognisant of its real nature. If he is skilful enough to be able to ascribe the cause to the presence of irritating ingesta giving rise to spasmodic colic, rational treatment will consist in the administration of a purgative to remove it. If tympanitic distension of the abdomen be present he prescribes suitable agents to overcome this condition. But if the case happens to be acute enteritis, gastric impaction, or acute gastric tympany with paralysis of the walls of the viscus, or if volvulus or other fatal lesions be present his treatment is at a limit—a fact which is demonstrated to him by a recognition of those phenomena whose fatal significance is learned by clinical experience. Both the animal and his owner seem to vainly enquire "Is your skill exhausted? Can you do nothing more?" How often when watching such cases I have reflected that our treatment has not advanced to any extent on that which we find recorded of such affections in early professional literature.

In every department of therapeutics there are ample opportunities for useful research, and it is our duty to discover new methods of treatment, and to test their value by practical employment. While we must be careful not to despise empirical treatment or overlook the teachings of experience, we must always recognise that it is only by endeavouring to explain these in a rational manner that we can hope to render therapeutics a perfect science, and thus increase our sphere of usefulness.

## FURTHER UNION.

At the last meeting of the Western Counties V.M.S. the President devoted the greater part of his inaugural address to a suggestion for further union. Mr. Bloye offered a practical idea which I am surprised has not been taken more notice of. His idea was that all the local associations should have some means of combining for special occasions, so that when any subject which affected the whole body required consideration we might have at hand, ready for use the necessary organisation.

The value of our numerous local associations has been often recognised, but it must also have been repeatedly noticed how difficult it is to get them to act together. Mr. Bloye thinks further union might be effected by some link being made to connect the local societies with the National Veterinary Association. Mr. Hurndall, I think, also once made a similar suggestion, and cited the British Medical

Association as the model upon which we might form ours.

If such an union could be brought about it would be a most valuable thing for the whole profession. The local societies would thus be all strengthened and the "National" revivified. I am not prepared with any scheme for this, and I write only to ask some more influential man than myself to give us an outline of some method which would leave the local societies quite independent, but at the same time afford such an union with the "National" as would enable us to act altogether.

Exemption from juries, the payment of decent fees by local authorities, fair treatment by the Board of Agriculture, are some of the questions which a large united body, with influence in every county might well consider.

It seems to me that we shall never attain what we have a right to expect unless we are more united, but we must be careful not to form a union which can be governed by a small clique, and therefore the local societies must be left all the freedom and liberty they now possess. May I quote the old tale of the dying king, who called together his sons and taking a bundle of arrows broke each one with his feeble fingers. Then he offered a united bundle to the young men and asked them to break it. Each in turn tried and failed. "See my sons" said he "how easily each seperate arrow was broken, but how impossible it is to harm them when united. Men are like arrows, so do you remain united together and you need fear no enemies."

VERBUM SAP.

# Royal College of Veterinary Surgeons.

## THE EXAMINATIONS IN SCOTLAND.

At meetings of the Board of Examiners held in Glasgow and Edinburgh, on December 10th for the Written Examinations, and on and between December 17th and 21st for the Oral and Practical Examinations, the following gentlemen passed their Final Examinations, and (with the exception of Mr. D. Campbell, who will not be of age until April 4th, 1895) were admitted Members of the Royal College of Veterinary Surgeons.

### GLASGOW COLLEGE.

Mr. D. Brown, Kilbride, Ayr
J. Goman, Cardiff
A. Hart, Glasgow
D. Houstoun, Port Glasgow
J. Hill, Glasgow
J. H. Wilson, Glasgow
H. McCartney, Neilson, Renfrew
A. McDougall, Irvine

### DICK COLEGE.

* Mr. T. J. Batty, Doncaster
† D. Campbell, Aberdeen
G. Chater, London
W. Hewitson, Brampton
Mr. H. C. Jagger, Boston
J. Miller, Dundee
D. Morrison, Rynie, Aberdeen
J. A. Matheson, Edinboro
J. McArthur, Sligo
L. McLaren, Killin, Perth
J. McMaster, Stranraer
A. W. Oxenham, Aberdare
T. W. Rudd, Dublin
E. R. Sherron, Harrow
R. J. Stordy, Edinboro'
A. H. Stephenson,
T. Smith, Coleraine
J. E. Young, Nantwich

### NEW COLLEGE.

Mr. P. Abson, Sheffield
J. P. Byrne, Cork
F. L. Blakemore, Atherton, Manchester
H. W. Deakin, Ashton-under-Lyne
L. Farr, Grimsby
S. Fenny. Durham
F. W. Hall, Manchester
J. R. Hamilton, Boyle
R. C. Moore, Longhurst, Northumberland
* W. A. Pallin, Curragh
* E. Plant, Holmes Chapel, Cheshire
C. L. Smith, Barnsley
G. Thornton, Bradford
A. Waller, Brighouse, Yorks.
W. Webster, Preston
J. H. Wright, Salop
J. H. Yates, Liverpool

The following gentlemen passed their Second Examination:—

### GLASGOW COLLEGE.

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| *Mr. J. Brown | † Mr. R. Mitchell |
| * W. N. Campbell | W. Neilston |
| R. McDonnell | * A. B. Sullivan |
| † H. MacVean | † G. Thompson |
| * J. McLean | |

### DICK COLLEGE.

| | |
|---|---|
| Mr. W. V. Allan | † Mr. P. M. Edgar |
| W. T. Aulton | J. C. Heather |
| R. Barker | * S. W. Haffield |
| * M. Bray | † W. Russell |
| * R. C. Brayne | * H. W. Robson |
| J. Caldwell | * T. H. Sherlock |
| * W. H. Campbell | * W. Scott |
| * J. H. Carr | * A. Sellers |
| * H. Conyngham | A. C. Smart |
| W. T. Casewell | * J. Walker |

### NEW COLLEGE.

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| * Mr. G. C. Baker | * Mr. B. Holmes |
| J. Bibby | * W. F. Hughes |
| * J. Brittlebank | † J. Kenyon |
| H. Cameron | * J. Lyons |
| * J. Duff | * T. Ryan |
| * A. Ferrens | * J. M. Walker |

The following gentlemen passed their First Examination:—

### GLASGOW COLLEGE.

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| Mr. J. W. Conchie | Mr. P. McKinlay |
| J. C. Erskine | R. Peddie |
| J. Forwell | R. Porteous |
| A. Fraser | |

DICK COLLEGE.

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|---|---|
| Mr. J. Atkins | Mr. E. Lander |
| R. C. Baxter | T. Loughran |
| A. G. Blackwood | A. G. McGown |
| W. J. Coffey | F. Moore |
| J. Dalrymple | * J. O'Brien |
| J. Dixon | E. C. Orton |
| T. Boyle | A. F. S. Jackson |
| C. Farrar | |

NEW COLLEGE.

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|---|---|
| Mr. G. Barras | Mr. H. Brittain |
| J. C. Blake | J. S. Drabble |
| H. Briggs | J. Knowles |

Marked thus * passed with Second Class Honours.
" " † " " First " "

R. RUTHERFORD, F.R.C.V.S.
*Secretary to the Board of Examiners.*

## VETERINARY SOCIETIES

### NORTH OF ENGLAND VETERINARY MEDICAL ASSOCIATION.

The quarterly meeting in connection with the above Association was held at the Hotel Metropole, Newcastle-on-Tyne, on Friday, November 16th, 1894. W. A. Hancock, Esq., President, in the chair. The following members were present: Messrs. J. B. Nisbet, H. Hunter, Vet.-Major Durrant, J. E. Peele, A. Dalgleish, T. Lanchester, J. W. Rider, G. M. Mitchell, J. Gofton, J. W. T. Moore, A. Hunter, W. Hunter, and the Secretary, F. T. Finney. Visitors: Professor Williams and P. Moir, Edinburgh; Dr. George Murray, and Messrs. Peele, Jun., and C. Campbell.

The minutes of last meeting were taken as read and adopted.

ELECTION OF OFFICERS.

Mr. H. HUNTER proposed, and the Chairman seconded, that Mr. G M. Mitchell be elected President for the ensuing year, which was unanimously adopted. Messrs. J. E. Peele, Durham; and Mr. J. W. Rider were elected vice-presidents; Mr. F. T. Finney was re-elected secretary and treasurer, and Messrs. G. Elphick and A. Hunter, auditors.

The CHAIRMAN, in calling attention to the next subject on the agenda—adjourned discussion on Mr. Thompson's paper on "Parturition"—said that Mr. Thompson was not present and would not therefore be able to reply to any remarks that might be made. Unless there was anyone present anxious to take the matter up he thought the best plan would be to defer it.

NEW INSTRUMENTS.

Mr. HUNTER said he was going to suggest that the Society should have a set of instruments such as Mr. Thompson has. He had a very complete set of instruments for parturition. Could not the Society provide a set for the members?

The CHAIRMAN thought that if a man could not calve a cow with his hands and arms, instruments would be of very little use to him. He asked if they did not think that some teeth instruments would be better and more useful for their members. His own opinion was that something of that sort would be very useful. They had a balance of £11 and they could get a little value for their money if they had it invested.

After further discussion, it was decided on the motion of Mr. Hunter, that teeth shears and teeth forceps be purchased for the Society and, on Mr. Peele's suggestion, a chloroform bag was added to the list.

### ON TUBERCULOSIS,

*Abstract of Address*

By PROFESSOR GEORGE MURRAY, M.B.

When your energetic secretary, Mr. Finney, asked me to address you to-day upon some subject connected with the study of bacteriology, I was rather at a loss as what subject might interest you most. After consideration I came to the conclusion that there was no disease which engaged the attention of both the medical profession and the veterinary medical profession in common so much as tuberculosis. The subject is as large as it is important, and to-day the time at my disposal will not allow me to do more than deal with a few questions which concern us both, and in the consideration of which we meet on common ground. Of the treatment of tuberculosis I shall to-day say nothing, for I feel that in the case of animals I can tell you nothing which you do not already know far better than I do. The cure of disease which has already developed is not by any means the sole duty of either the medical practitioner or of the veterinary surgeon. One of the most important duties and I may say one of the highest privileges of both professions is the prevention of disease, for truly prevention is better than cure. Satisfactory and pleasing as it is to cure disease, how much better when sickness with all its attendant miseries can be prevented altogether. The importance of this comes home to us when we remember how many diseases of men and animals are due to preventable causes, and as the Prince of Wales so pertinently remarked at the opening of the International Hygiene Congress in London, "If preventable why not prevented?" Here we meet on common ground, for many preventable diseases which attack man are transmitted to him from the lower animals. Hence all measures which are undertaken by the veterinary profession for the prevention of the spread of communicable diseases among animals also tend to diminish the channels by which such diseases are conveyed to man. Anthrax furnishes a good example of this. For this reason I consider that all organised systems of veterinary inspections are of the highest importance to the well-being of the community at large. It is only by careful and constant inspection that the earliest signs of disease can be detected and precautions taken to prevent the spread of the disease. In tuberculosis we have a common enemy. In one form or another it is said to be answerable for one-seventh of the total number of deaths which occur annually in Europe, and in domesticated animals it is also a fearful scourge. Our knowledge of the disease has increased greatly during the last twelve years, since the brilliant discovery made by Koch that tuberculosis waa caused by a specific microbe, the tubercle bacillus, a bacillus which is the cause of tuberculosis of both man and animals. As a result of this discovery many forms of tuberculosis which formerly were not recognised as such have been recognised by the presence of the tubercle bacillus. The discovery has not only led to an exact and scientific classification of the various forms of the disease, but has given us a definite test by which the nature of doubtful specimens may be accurately determined. We thus have a valuable aid to food inspection. Samples of meat are frequently submitted to microscopical examination for this reason, that the naked eye appearances are not sufficiently characteristic to show the nature of the disease. If the microscopical examination reveals the presence of the bacilli the question is settled at once. Such examina-

tions are however only necessary in doubtful cases, and require a considerable amount of time in addition to a practical knowledge of the methods of examination and the use of the microscope. A still more delicate test for the presence of the bacilli in food or milk is the inoculation test, but this requires still more time, and often no definite answer can be given till several weeks have passed. Moreover in this country but few possess the necessary legal permission to perform such experiments.

Dr. Murray then described the characters of the tubercle bacillus, and showed how Koch had proved that it was the true cause of tuberculosis (*a*) by demonstrating its presence in all cases of tuberculosis, (*b*) by obtaining pure cultivations outside the body on artificial media for many generations, (*c*) by reproducing the disease by inoculation, (*d*) by finding the bacillus living in the animals which succumbed to inoculation tuberculosis. He then showed that the most common channels of infection in both man and animals were (1) by inhalation of dust containing bacilli, (2) by swallowing infected food.

In man and animals infection of the lungs often takes place from the inhalation of dried particles of the discharges from diseased lungs, which contain the bacilli in large numbers. Thus stables and sheds may easily become infected by such discharges from tuberculous animals.

In man, and especially in children, infection from milk is common, not only from milk from diseased udders but even from milk from the healthy udder of an animal with tuberculosis in other parts of the body. A cow may also infect a calf by the milk. Tuberculous meat is answerable for the infection of man in some cases. In animals I am unable to speak as to what kind of food may convey infection. But it appears probable that one tuberculous beast in a shed may readily infect the stall if it has any discharge from the respiratory passages, and so pass on the infection to any other healthy animal which is afterwards put into the same stall. A phthisical cow-keeper may readily infect the cows under his charge if he spits carelessly about the cow-shed, so that some of the bacilli become dry and are inhaled by the cows, or are mixed with their food and swallowed. Other channels will suggest themselves to you who are familiar with the habits and management of animals more intimately than I am. What I wish especially to impress upon you is that very few human beings or animals are born with tubercle bacilli already in them; at most they inherit a predisposition, that is to say the tissues are favourable soil for the bacilli, but that in nearly every case the bacilli gain access from outside after birth. This is the keynote of the prevention of tuberculosis. We must direct our attention to the prevention of the spread of bacilli by diseased animals, living or dead. If we succeed in doing this successfully tuberculosis will rapidly diminish in frequency.

Wild animals are rarely tuberculous, but soon become so in confinement, not because they have grown so much more susceptible to infection but because they have encountered the germs of the disease which they did not come across in their wild state. How can we prevent the distribution of tubercle bacilli? By careful disposal of discharges. By disinfection. No person suffering from phthisis should have charge of dairy cows, as the consequences may be so serious if he infects even one of the cows. I advocate isolation of all suspected animals and slaughter of all which have undoubted tuberculosis. The difficulties may be great but the end justifies the means.

Many valuable beasts succumb to tuberculosis, and in the interests of cattle-breeders alone it is advisable that the disease be stamped out by every means in our power. Even if this economic aspect of the question did not exist, when we see the amount of misery which is produced by tuberculosis, especially in the children of the poor in our large towns, the importance of such measures comes home to us.

The Danish plan of systematic veterinary inspection of all dairy cows and cattle intended for the market is most excellent. The inspection must however be repeated frequently. By aiding the early diagnosis of tuberculosis in cattle we may feel sure that tuberculine will be the means of saving great numbers of lives, for it is the sharpest of detectives for discovering even small tuberculous nodules lying hidden away in remote parts of the body. In this way it enables animals to be isolated and killed before they have done much harm. You know how difficult it is to recognise tuberculosis in the early stages. In man it is difficult enough, but more so, I should say, in cattle. In man the microscopical examination of the sputum is a valuable help to diagnosis, as the bacilli are often numerous when the other signs of the disease are but slight, this method might be employed in animals when the disease affects the lungs and there is some discharge to examine.

Tuberculin is a glycerine extract containing the chemical products of the tubercle bacillus. Bacilli, like other organisms and animals, form certain excretory products which in many cases are powerful poisons. A culture of the tubercle bacilli is grown and both glycerine and carbolic acid are added, and the whole is filtered through porcelain to get rid of the bacilli and obtain only their chemical products. This is diluted with nine parts of 1% carbolic acid solution to one of tuberculine. When a small quantity, 40 to 80 minims, is injected into a tuberculous animal a rise of temperature takes place in from 3 to 20 hours. The syringe must be disinfected by washing out with 5% solution of carbolic acid or 4% of creolin in water. The injection is made behind the shoulder blade beneath skin which has been previously disinfected. The temperature must be taken in the rectum every 3 or 4 hours for some hours before and for 24 to 48 hours after the injection, the thermometer being left in for 3 minutes each time. A distinct rise of 1° to 5° above the average normal temperature may be taken as evidence of reaction. When this reaction takes place experience has shown that in by far the larger proportion of cases tuberculosis is present.

It is probable that the test is correct in more than 90% of cases, but on this point we require further statistics. On the other hand, if tuberculosis is present in an active form the animal hardly ever fails to react. Where the tuberculous focus is small and calcareous there may be no reaction, but probably in these cases the disease has practically been cured.

When the reaction takes place in a milch cow I maintain that the cow must no longer be used for the supply of milk for human food. Bacilli taken in milk appear to be unusually dangerous, and it may be that along with the absorption of the fat in the alimentary canal the bacilli easily gain access to the mesenteric glands, for this form of tuberculosis is terribly common in children.

The question of the use of meat of tuberculous animals is a large one. Experiments show that such meat, even though healthy in appearance, may convey the disease; so that I consider such meat should only be sold with a label signifying that it was from a tuberculous animal. This will allow the public to buy with open eyes, and to take especial care in cooking such meat. If such meat is cooked with care I believe the danger of infection is minimised, for tubercle bacilli are easily destroyed by heat. Boiling rapidly destroys the bacilli, so that milk can be sterilised by boiling for a minute.

We must not however be content with these precautions only. The sheds which have been occupied by diseased animals must be disinfected before others are allowed to use them. All parts must be washed, sprayed with perchloride of mercury solution, then thoroughly

white-washed, and as much fresh air and sunlight admitted as possible.

This question of tuberculosis is one of pressing importance, for if not attended to the disease will become more frequent. The cases of unsuspected tuberculosis are common in England. Of this we gain a fair idea by the number of animals which when slain because exposed to contagion of pleuro pneumonia turn out to be tuberculous. Such animals are supposed to be healthy, and are killed because they may be in the incubation period of pleuro-pneumonia. In Professor Brown's report to the Board of Agriculture in 1892 we find that in London 25°/₀ of such animals were tuberculous. In Midlothian 20°/₀. In Yorkshire 22·8°/₀. In Durham 18·7°/₀. Tuberculin was found to be reliable test in 90°/₀ of the cases.

In America in the State of New York, three veterinary inspectors were recently appointed to go through each county to examine the herds and to kill infected cattle. They first made a physical examination: if the presence of the disease was suspected tuberculin was injected. If a reaction took place the animal was killed. Partial compensation is made by the State to the owners. During last year these inspectors examined 20,000 animals; 686 were found to be infected and were killed. No mention is made of testing apparently healthy herds with tuberculin.

In Denmark the tuberculin test only failed in 2°/₀ of the cases. The Government made a grant of 50,000 crowns for the expenses incurred by the tuberculin tests throughout the country. In Denmark if an animal reacts to the test it is fattened for the butcher. The meat after inspection is branded with a special stamp indicating that the animal has suffered from tubercle, and the public are cautioned that it must be well cooked. In one case Professor Bang found that 80°/₀ of the cattle in one herd were infected.

In England all herds of cattle, and especially all dairy cows, should be inspected at regular intervals by special veterinary inspectors, who should be empowered to employ the tuberculin test whenever they deem it advisable; in fact all milch cows should be tested with tuberculin at each visit, even though they may be apparently healthy. If a milch cow reacts it should be isolated at once and the milk no longer used for food, and the shed must be disinfected. Meat from tuberculous animals should be boiled thoroughly at the slaughter house and sold with a special mark upon it. Compulsory notification of the disease to the sanitary authority is necessary also, to ensure the efficient carrying out of the precautions. Whatever loss is incurred by the owner should be made good by the State, for the State as a whole benefits greatly by the decrease in the frequency of tuberculosis.

### Discussion.

The Chairman, in opening the discussion, said he thought they would all agree with him that Dr. Murray had dealt with the matter in a most satisfactory manner. It had always been a pet subject of his (the speaker's) and he might say that in the main he fell in with the suggestions of Dr. Murray. But there was one thing of very great importance and that was the wholesale destruction of meat derived from tuberculous animals. He thought that was wrong. He thought they should wait for the harmful effects of even tuberculosed meat on the human subject before they condemned it. He considered that the doctor's suggestion, to sell such meat under stamp so that the public could know what they were buying, to take precautions accordingly, was by far the better method. With regard to milk it was different altogether. Something must be done to stop the harmful effects of the sale of tuberculosis milk. He had even been into a cow byre, not only here but in other parts of the country, and directly one got inside he said "here is a collection of wasters." He had been where there were 20, 30, or 35 or more, and the impression forced upon one on looking at them was that they were all "wasters." His opinion was that such cowkeeping should be done away with as a pest. As to the question of heredity he was not quite sure whether they did not get it in an hereditary form sometimes. He had seen it in a calf three days old and it could not be suggested that that was derived from the milk. Dr. Murray had spoken of inoculation and isolation of suspected animals, and had advocated the prompt destruction of all tuberculous animals. He thought that was going too far. Tuberculosis, he took it, was different altogether to pleuro-pneumonia and swine fever. You often went from ten to twelve months from the introduction of a wasting cow into a byre before seeing the dire result of the introduction. Therefore he thought that this disease should be treated on distinctly different lines to swine fever and pleuro-pneumonia. If they could devise some scheme for inoculating suspected animals and then isolating them and fattening them for the kitchen he thought that would be sufficient.

Professor Williams said he could only express his pleasure at being present to hear such an able and exhaustive paper read. There were one or two questions that he wished to refer to, and particularly that of heredity. In his experience he had seen the offspring of tuberculous bulls where the dam had been perfectly healthy, and where the young one had never seen its father, but you would find that these young animals when two or three years old developed the disease. It was very singular indeed but they did see tuberculosis in young animals. There could not possibly be any infection there, but he thought that if they looked at it from another point of view they could understand it. He thought the doctor would allow him to say that both cattle and human beings are all surrounded by tuberculous bacilli. There was so much of it spat about the ground that it was always about. He did not say for a moment that this young bull developed the disease without bacilli being injected into it somehow; but he thought the constitution, and soil, and predisposition to the disease was heredity. In this way they could account for some of their best breeds of cattle being affected—cases where the cows were perfectly healthy, but the bulls were tuberculous. He thought that the constitution which was favourable to these bacilli was undoubtedly hereditary. In the next place as to the meat, they must remember that there are two kinds of tuberculous animal—that was to say, two developments. They would find a good one fattened for Christmas, and he maintained that such an animal was perfectly fit for food, but under certain conditions it would be better to sell it at such a place as a licensed shop. In Germany they allowed the meat of the "piner" or "waster" to be sold. He would not like to see that done in this country. The very look of such meat was enough to make a man sick. He did not think that the meat of the "piner" should ever be sold even under a license, but it was a great hardship when the Local Authority found the meat of one of the other class of animals and at once condemned it. Perhaps the butcher has paid £20 or £30 for it and he got no compensation at all. The nodules might be scraped off and perhaps the sides destroyed. Then they knew that by proper cooking the bacilli were destroyed. He maintained that there was no danger in eating the meat of the fattening tuberculous animal. As to the milk, that was another thing. The question of the milk should be taken up at once; no time should be lost. There was another thing he wished to refer to. In his peregrinations he had come across tuberculous young horses brought up for show purposes. About a year ago he saw in Lancashire a

two-year-old colt which had taken first prize at a show in London. It was about a £300 colt. He went to see it and found that it had tuberculosis. He asked the owner if he gave it milk, and the reply was "yes, plenty of it." He had no hesitation in saying that the disease in this case had been got from the milk that the colt had been fed upon after it left its mother. He had nothing more to say except to express his thanks to Dr. Murray for his very able and lucid paper.

Mr. HUNTER did not know that he had much to say, but he had a lively recollection of one byre that they attended for many years. In this they had a certain percentage of tuberculous cases. The others seemed well, but he thought they were never without a case on the premises. Some animals seemed to resist the disease, but others to succumb to it. The byre was a ricketty old place with sanitary arrangements altogether bad, and the marvel was that any of the animals escaped at all. There were only one or two of what might be called "piners," the others seemed to hang on and to be fairly well. With reference to heredity, he was strongly of opinion that the disease was hereditary, and he thought Dr. Murray would bear them out in that—he thought the doctor did not contend that it was not hereditary. In the human family it had been considered to be hereditary and he thought that it was hardly a question of hereditary liability to the disease. He thought that the bacilli must be transmitted from the bull to the fœtus in the cows.

Mr. MOORE said it was now about 15 years ago that a discussion took place on this subject in Manchester, when he raised a storm among many members of the profession by the views he gave expression to. He had held for years a rather strong opinion about the sale and consumption of milk and meat from tuberculous animals. It would be in the recollection of some present that eight years ago in a discussion on the subject in this Society he said he did not care how much it was infected with tuberculosis, an animal so infected was unfit for food. Mr. Hunter got up at that time and said he thought that an animal should not be condemned unless it showed unmistakable signs of tuberculosis during life. He (the speaker) said "If you only saw the carcase where do you draw the line; you cannot draw the line. He thought now that if any tuberculous deposit was found on a carcase that carcase was unfit for food. A danger certainly existed. Although it was said that proper cooking would destroy the bacilli they had still to consider the large class of people who like their meat underdone. With regard to milk he had said before that the excessive infantile mortality was due to milk from tuberculous animals. He must say that he was considerably staggered when at a meeting of this Society two years ago Professor McFadden said that the number of children dying from that cause was very small indeed, and that the cases of infection through the alimentary were almost infinitesimal in number. However, Professor Murray had told them that day that he had made many post-mortem examinations on children and the numbers dying from this cause were large. He quite agreed with the suggestions made by Dr. Murray for dealing with the disease. At the meeting held in Manchester he asked if the Government would not take the matter up and stamp out the disease, and all round he was met by emphatic cries of "no." Still he had not changed his opinion. Every year strengthened him in the opinion that the Government ought to take the matter up. It was a difficult matter to deal with, he admitted, but still a small modicum of good might be done. If the Government did nothing else it would suppress in a short time the traffic in what was known as "piners." It was his privilege to try and stop the traffic from Denmark in "wasters." It evidently struck some brilliant minds over there that they would save themselves by sending their animals to England, and Newcastle seemed to be the centre to which they sent them. It was a most aggravating thing to go in among about a thousand cattle a week and find some animals that they were sure had tuberculosis, and then to find the animals' temperature normal and have to let them go. One day his colleague sent for him and he went and saw twelve cases. He valued them at £40 the lot. They killed one and found it infected with tuberculosis. They got an expression from London with regard to the lungs. The report was as they expected; it was tuberculosis. In a short time one of the other animals died, and ultimately the Inspector condemned another eight as unfit for food. They stopped these cows coming in, and the affair caused a great deal of attention both here and in Denmark. For about two years after that they never had an animal that could be called a "waster" sent over. They thought it a monstrous thing that this country should be made the landing place for these animals, and they thought they would try and stop the traffic in them. They put their foot down, and it was a long time before they took it up again.

Mr. GOFTON said there were two or three practical questions that he would like to suggest for their consideration. Suppose they went through a byre exposing milk for sale and found two or three cases infected with tuberculosis, what were they to do with them? The second was, if there were no slaughterhouse where butchers were compelled to slaughter their animals, how were they going to get proper and efficient inspection? The public required to be enlightened on these points. He was afraid that there was a good deal of bad stuff getting into the market; not only animals affected with tuberculosis but also animals that have not died an unnatural death find their way there.

Mr. J. E. PEELE said he had had a lot of experience in cases of this kind. He found once in a byre that he visited every cow was tuberculous. There was no doubt that in crowded towns the infection was very great. He certainly thought that the disease was hereditary, for it would be found to have gone through whole families of cows. He thought they knew what caused tuberculosis, and the thing now was to get to know how to kill the bacillus. That was the great problem of the day. In all infectious disease the thing was to get to know how to kill the bacillus or microbe.

Professor WILLIAMS remarked that the milk from a tuberculous udder conveyed the disease to the majority of the animals that take it, but if it was diluted with about 50 per cent. of other milk the danger becomes less. It was an undoubted fact that milk from an infected udder conveys the disease to those who partook of it.

The CHAIRMAN said that to those who thought that there was no greater activity of the microbe producing tubercle at the time of calving he would say that he had often found cases where cows were pretty well until after they had calved, and then they would go into rapid decline—a type that they would call "galloping consumption."

Mr. PEELE said he could bear the Chairman out in that. He had a case that morning where a cow was delivered of twins, and as soon as she got rid of them she developed tuberculosis, and he advised putting her down.

Professor MURRAY replied to the discussion. With regard to the heredity question that they had dwelt upon by a good many speakers; he was afraid he had not made himself quite clear. What he wished to convey was this—that the actual disease is not often hereditary. It certainly is sometimes, but what he maintained was that such cases were not common. Professor Williams had put the point well in the cases mentioned by him.

There was probably something in the tissue which made it suitable soil for the disease, but he thought it impossible for the father to actually transmit tubercle bacillus. He thought that must be of rare occurrence, and he thought that, as Professor Williams put it, it must have been a predisposition to the disease. That is what is inherited in many cases, and the infection takes place afterwards. Another point in favour of his view was this. As the profession mentioned, the disease is rarely seen in very young animals. If an animal was born with the disease in it it would show it in the first month. If it does not it is evidence that the infection must have occurred after birth. As to the last remark of the Chairman as to cows often going into a rapid decline after calving, that he was very much interested to hear, because it was a well-known fact that among human beings the same thing happens. He was also much interested to hear of the cases of horses fed on tuberculous milk developing tuberculosis. That is rare. The fact of them taking it from the milk he thought showed that there was something in the milk that rendered it peculiarly virulent. As to what Professor McFadden said about children being affected with tuberculosis, he would reply by saying he thought that about half the cases he had examined were cases of tuberculosis. He was very glad to hear Mr. Moore's remarks about stopping the traffic of "wasters" from Denmark, he thought that they all owed a debt of gratitude to Mr. Moore for his efforts in that direction. As to the exact steps to be taken with a tuberculous animal found in a byre, he did not know what the actual state of the law with regard to that is, but he certainly thought that the animal should be removed, the byre disinfected, and the animal killed if necessary. No milk that came from it should be sold. It was true that when the milk was diluted with other milk it was less virulent, but they had to remember this. Suppose there were seven cows in a byre one of which was tuberculous, if the milk from that cow were kept to itself only a few people perhaps would drink it, but should it be mixed with the milk from the others it would be spread over a large number of people though in a less virulent form. As Mr. Peele had said, what was wanted was something to kill the bacillus without injuring the animal. That was certainly what they were looking for. In conclusion he must thank them for the very kind way in which they had received what was a disjointed paper, and he was very much obliged to them for discussing the points he had raised so thoroughly.

Professor WILLIAMS proposed a vote of thanks to Prof. Murray for his able paper. He thought that both himself and his friend from Edinburgh had been rewarded for their long journey. For medical gentlemen to read such papers as this at their meetings was very beneficial, and they should do all they could to assist the other profession.

Mr. HUNTER seconded, remarking that more of them should attend the classes over which Professor Murray presides at the Durham College of Science. They could not do better than go and make themselves conversant with the study of bacteriology.

Mr. MOORE, supporting, said they stood on similar grounds to the other profession—the great object of both was not so much to cure as to prevent disease.

Professor MURRAY replied, and said a warm welcome would be extended to any of them who wished to take up the study of bacteriology at the College of Science. They hoped in time to have more accommodation there for the study of large animals.

### THE RETIRING PRESIDENT.

Mr. HUNTER proposed a vote of thanks to the retiring president. This was the last meeting, he said, when they would have the pleasure of seeing him in his official capacity. They were all sorry he was leaving the district, for he had always been a pleasant professional brother to meet. He had been a very able president, and he hoped they would often have him among them again.

Mr. MITCHELL seconded. From a selfish point of view he was sorry that Mr. Hancock was going, for he was saddled with his duties during the next twelve months.

The vote was heartily carried with acclamation.

The PRESIDENT, returning thanks, said he would like to reassure Mr. Mitchell by telling him that when he took office twelve months ago he thought he would not get through it, but Mr. Mitchell would find that they had such a good secretary in Mr. Finney and such a good corporation, that the duties of the office were made very light indeed.

After the meeting several members sat down to a complimentary dinner to Mr. Hancock, prior to his leaving for his new residence in the South, and a most enjoyable evening was spent.

F. T. FINNEY, *Sec.*

## REVIEW.

### THE ANNUAL REPORT OF THE VETERINARY DEPARTMENT OF THE BOARD OF AGRICULTURE.

#### THE TRAVELLING INSPECTOR'S REPORT.

We have already noticed the report by Professor Brown and the reports by Mr. Cope and Mr. Duguid. The report by Major Tennant, which follows them, covers five pages, but only ten lines are devoted to the "Transit of Animals in Great Britain." The rest concerns rabies, pleuro-pneumonia, and swine-fever. This might be taken as merely indicative of a want of the sense of proportion on the part of the author. It is not so however, it is, on the contrary, a very fair illustration of the division of labour enjoyed by the Chief Travelling Inspector—one-twentieth "travelling" and nineteen twentieths "veterinary." Since the report appeared this position has changed for the worse, and practically Major Tennant has been shuffled into the place vacated by Professor Brown. He is now head of the Veterinary Department of the Board of Agriculture—a job effected under false pretences. He is not called, as was Professor Brown, "Director," but he is entitled "Principal," with the explanation that "this is a clerical office." It is a matter of no importance to the taxpayer or to the veterinarian what his title may be or what it may signify, but it is a serious and momentous matter that a gentleman trained for and in the Army should be made chief of the Veterinary Department of the State.

In saying this we desire to repudiate any reflection on Major Tennant. He is a distinctly able and energetic man. If he had been trained as a veterinary surgeon he would have possessed every attribute essential to his position, but it requires no argument to show that a soldier is not a fit person to guide a veterinary department. The mistake has been made, and for our professional honour and credit we must leave no stone unturned to retrieve the position, even

if the rulers and legislators of the country fail to perceive the anomaly and the danger to the stock-owner.

Now let us return to the report. It commences with a short review of the first detection of swine-fever in Berkshire in 1862, and then goes on to mention the earlier measures adopted for its restriction. Commenting upon the efforts of Local Authorities to check the disease prior to 1893 the Chief Travelling Inspector says "A principal result obtained by the authorities by their action with regard to swine-fever, was a demonstration of the inherent futility of any local and occasional effort to cope with the disease, and the necessity of establishing uniformity of action by the intervention of a Central Authority." This argument has been so often used by the Board of Agriculture and repeated by the press that it has come to be stupidly accepted as correct. It is vitiated by the old logical error of comparing dissimilars. It seems to show that local authorities are incapable of stamping out disease, and that the Central Authority must assume entire directing and executive action. Now the facts are that no local authorities have ever yet been given full powers of action, and that the Board of Agriculture has never attempted to tackle any disease without full powers. Moreover, the Board has never taken in hand any disease until public attention and public knowledge of that disease has been matured by years of labour on the part of local authorities. "Uniformity of action" is no longer necessary, and Parliament recognised this years ago by giving a controlling power to the Central Authority. This controlling power has been carefully kept in disuse, and only permissive power given to the local authorities. If an army with defective arms were sent against an enemy and their instructions were to fight or not as they found most inclined, success would not be looked for. If another army were properly armed and given peremptory instructions to fight they would have every hope of victory. There is as much difference between these armies as between the local authorities and the Board of Agriculture in their war with the diseases of animals. In these days when decentralisation is the key note of all political and social effort it is simply a retrograde step to make the Central Authority in London responsible for the suppression of disease throughout the country. When the National Exchequer pays the cost and a Board in London does the work and takes all the credit, local effort is killed and indifference takes the place of lively attention. It seems to be forgotton that local action and local money stamped out the cattle-plague when it had been allowed to spread all over the kingdom. Foot-and mouth disease also ceased to exist in 1884 as the result of measures enforced by local authorities. Pleuro-pneumonia was a comparatively easy task, and the Board has just managed to accomplish it. Now that the importation of disease is effectually guarded against except from Ireland there is no single argument in favour of superseding local effort by a bureau in London. The argument of Major Tennant is entirely a false one, and can have but one effect, viz., to destroy local self-reliance, and to build up in London an over-manned department which does its work at enormous expense and with deliberate delay.

No one needs now to be told how this excuse was accepted, how the Board had full powers given them, and how failure has attended the wasteful expenditure of money with which a small army of non-professional men were entrusted to stamp out swine-fever. The report next refers to pleuro-pneumonia, and attempts to throw some light on the question of its origin and spread—a question previously dealt with by the expert officers of the Board.

Concerning rabies we are told that the neglect of local authorities is again the chief cause of its spread. Nothing is said of the powers possessed, but not used for fear of political trouble, by the Board which is able at any time to step in and insist upon action. No fault is found with the legislation which permits the negligence of the local authorities. No reference is made to the inaction of the Board which winks at the constant importation of dogs from Ireland where rabies always prevails. "For every failure blame the local authorities, for every success credit the Board of Agriculture" seems to be the lay of the Chief Travelling Inspector.

After a quarter of a century's experience the Contagious Diseases (Animals) Act is still an almost unintelligible patchwork. When the Act was carried out by the Privy Council, it was fairly and honestly worked. Now that it is run by a government department, the head of which goes in or out with each change of ministry, political exigencies qualify every action. The permanent staff constantly increases, but amongst the superior officers veterinarians make way for gentlemen of all professions except those which include a knowledge of animals in health and disease.

We can only believe that these things are because Parliament is ignorant of them, and the veterinary profession must see to it that such ignorance shall not continue. Every local association must find a voice, and every voice be directed to the members of Parliament in the district.

## ARMY VETERINARY DEPARTMENT.

A supplement to *The London Gazette* contains the following notification:

INDIA OFFICE, January 1st, 1895.

The Queen has been graciously pleased to make the following promotions in, and appointments to, the Most Eminent Order of the Indian Empire:

To be Companion.

Vet.-Captain Joshua Arthur Nunn, D.S.O., Principal Veterinary College, Lahore.

MOVES AND ARRIVALS.

Vet.-Major W. Gladstone arrived from India after completion of tour of service, and is posted to 4th Hussars, Aldershot.

Veterinary-Captain E. E. Bennett is transferred from Aldershot to Limerick.

Veterinary-Lieut. E. J. P. Barry, from Aldershot to Woolwich.

### Private Meat Inspection.

The following is a new deparature; and in the absence of properly organised inspection is quite a move in the right direction.


## Christmas Announcements.

THOMAS WALKER,
**8 Sadler-Gate Bridge, Derby,**
HAS HIS USUAL SUPPLY OF
PRIME
BEEF, MUTTON, VEAL, &c.

MR. THOS. WALKER begs to announce that his Xmas Beef has been slaughtered under the inspection of Mr. J. T. ABELL, M.R.C.V.S., and marked by him, FREE FROM TUBERCULOSIS.


### Personal.

Mr. P. M. WALKER, M.R.C.V.S., read a paper on the "Use and abuse of leather soles on horses," at a meeting of the Halifax and District Farmers' Association, Mr. Drummond in the chair. He dealt with the misapprehension that exists in the minds of many horse-owners as to the protection afforded by and the necessity for leather soles. Considerable discussion arose, and it was thought that beyond affording protection in cases of temporary injury, such as from the prick of a nail, suppurating corus, &c., and for the purpose of affording a convenient method of attaching the india-rubber frog-pads, patented by Mr. Walker 24 years ago, leather soles are unnecessary.

ACCIDENT.

Mr. R. RIMMER, of Kendall, was returning home from a call on Saturday last when his horse slipped throwing him and his assistant violently to the ground, and resulting in a fracture of Mr. Rimmer's arm. Upon inquiry he was said to be doing well.

## CORRESPONDENCE.

### "WILD STATEMENTS."

SIR,

If I must needs suffer rebuke I could not wish a happier censor than the writer of your last, that is, so long as he narrates actual occurrences. It is given to few to play so many parts as the President of Council, and whether as Farrier, or President, tactician, editor or controversialist, his dexterous changes and skilful manipulation of facts invariably win my warmest admiration.

It is therefore sad to discover an Achilles heel in so imposing a personality, and to have that it would be well for the President, as for us all "to make himself acquainted with the facts before hazarding his statements."

Such is nevertheless the case. If words mean anything and Lindley's grammar is yet authoritative "would" implies futurity. The President of the Royal Agriculture Society may also be expected to be "up to date" on the doings of his Society. If then that gentleman says on the 13th December "Unless they could thoroughly agree on the scheme to be adopted the assent of the Society to the scheme would certainly be witheld," he implies the possiblity of a disagreement between the Society and the Registration Committee. This may be a "wild statement" on the part of the President of the Society but until officially contradicted I take it all plain speaking people will attach to it the meaning I have given, despite the protestations of the Farriers' supporters.

The ingenuity with which your correspondent converts the future "would" into the future pefect is a little too naïve. The President of the Society said "would be withheld" not as quoted "would have been withheld." Undoubtedly it is well to "make oneself acquainted with the facts."

I am truly sorry to have to call attention to a further point. It will be remembered that the sympathetic suggestion that I "should make myself acquainted" etc., was called forth by a question of mine as to whether the 149 smiths "who had been properly examined this year" (so they *were* improperly examined before) had been all examined by the Company. Whether the reply exactly answered my question is perhaps not relevant—it might even be looked on by spiteful persons as a convenient way of disposing of awkward enquries—but one thing at least is certain, viz., that in the case of 35 men, the forge, coals, horses, and appliances, were furnished by Agricultural Societies and other bodies. This may be one way of holding examinations. To lead a parasitic existence on better supplied hosts is certainly agreeable, it is at the present day very popular, but whether it is good for the major parasite or the minuter parasites which this harbours is greatly open to question.

The importance of your esteemed correspondent's other arguments may be guaged from the weight he attaches to *The Standard's* error of turning Simpson into Thompson. I presume if *The Standard* had said Jones or Robinson that would have annihilated my position.

Unfortunately my remarks at Council are not all jokes nor do I think we assemble there to further the interests of clique or individual. When I mentioned these points I did so for the same reason for which I resigned from the Registration Committee—because I could not serve two masters, and because I believe the interests of the Registration Committee and the veterinary profession to be opposed.

It seems to me the President of this profession might more worthily have devoted attention to the other questions I raised on that occasion—the injury done to country practitioners by the abuse of the letters R.S.S. and the necessity for the Registration Committee making some slight *amende* for its career of bombast and inefficiency by striking off its Register men convicted of offences against the Veterinary Surgeons Act. Such trifles are perhaps beneath the notice of its members, but I venture to say that when the proper time comes the electorate will show they have not forgotten them.—Yours, etc.,

Dec. 28th. J. A. W. DOLLAR.

### A FINAL REPLY.

Mr. Dollar seems determined, on this matter of the Registration of Farriers, to display a want of accuracy usually quite foreign to his nature. His letter, so far as it possesses any relevancy to the issue between us, is simply an accusation of misquotation on my part. He has apparently mistaken an argument of mine for a quotation. If he will examine my reply again he will find that I quoted the remarks of the President of the Royal Agricultural Society exactly as he stated them. This is easily verified by reference to last week's *Record*.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Messrs. J. A. W. Dollar, W. Carless, J. Mc. C. Jamieson, P. M. Walker, E. F. de Jong, W. Reekie, Antonio L. Farrant, J. Darbyshire, "Observer."

*Veterinary Therapeutics and Pharmacology.*